

In the Specifications:

1. Please insert after the title but before the first line of the specification:

This is a divisional application of Serial No.: 09/911,124 filed on 7/23/2001 now allowed.

2. Please amend paragraph [0002] as follows:

[0002] The electrolysis cell is part of an electrolysis system for producing electrolyzed water. In the process of producing electrolyzed water, potable water is mixed with salt water or brine at a desired ratio and the resulting mixture is fed into the electrolysis cell, hereinafter also referred to simply as cell. Consequently, upon prolonged usage, electrodeposits, usually of calcium and magnesium ions are deposited and build up as scales on the electrolysis cell, thereby requiring periodic cleaning and/or replacement. While periodic cleaning can be accomplished by passage of cleaning solutions accompanied by rerouting the supply and exit lines with the use of valves, these processes merely prolong the life of the cell but has not removed the necessity of replacing the electrolysis cell. Replacement becomes necessary after a period of time because the electrodes themselves erode[[s]] and become inefficient. This invention relates to an improvement in the design of the electrolysis cell for the production of electrolyzed water, other products of electrolysis, and on process cells involving the passage of

electric current and on the housing enclosing the components of these electrolysis systems and other process systems. Current enclosed electrolysis systems such as those used for producing electrolyzed water are housed with the electrolysis cell and other components of the system in one compartment. The compartment is typically six walled with one wall or base holding most of the parts of the system and five walls or panels attaching together usually by means of screws, thereby enclosing the system. It is tedious to replace the electrolysis cell with the current housing. In a commercial unit, to replace the electrolysis cell, one has to unscrew at least one side panel of the housing adjacent to the wall attached to the cell. However, to do the replacement with less time, preferably two, a side and a top panel are removed. This facilitates access to the electrolysis cell. Once the walls are removed, one has to disconnect the cell from the compartment, the power source, system's other components and from all the tubings or pipings connected to its entry and exit ports. This replacement requires downtime which may discourage or procrastinate the replacement of the cell, thereby affecting its performance both in flow characteristics and efficiency.

3. Please amend paragraph [0017] as follows:

[0017] Figures 6A, 6B and 6C show ~~Figure 6 shows~~ alternate connectors for the entrance and exit ports of the electrolysis

cell.

4. Please amend paragraph [0024] as follows:

[0024] A commercial housing for the electrolysis cell comprises a main compartment enclosing components of an electrolysis system except an electrolysis cell, the main component having six walls, a top wall, a bottom wall and four side panels; an optional second compartment enclosing a power source; an isolated third compartment enclosing the electrolysis cell separated from the main and second compartment by a wall, the isolated third compartment having at least five walls, a top wall, a bottom wall, three side panels, an open side for easily reaching to and grasping on the electrolysis cell, the open side having an optional door to open or close the ~~second~~ third compartment; means for communicating the electrolysis cell to the components of the electrolysis system; and, means for attaching the electrolysis cell to the isolated third compartment.

5. Please amend paragraph [0028] as follows:

[0028] Fig. 3 shows the preferred connectors 25 for use with the claimed modified electrolysis cells. These connectors are usually attached to a front side [[27]] panel 27 of the electrolysis cell. The front side 27 having the connectors are preferably placed facing the open side 31 of the compartment. The connectors 25 are preferably those that can quickly connect and disconnect such as the snap in elbow connectors 36 sold by

Omega Engineering, Inc., One Omega Drive, P.O. Box 4047, Stamford, Connecticut 06907. Other typical forms of connectors that can be used are shown in Fig. 6 Figs. 6A, 6B and 6C. Examples are a quick connect fitting (Fig. 6A) from ~~hose and fitting.com~~ hoseandfitting.com; MES - Male Elbow Swivel (Fig. 6B) from Parker Fluid Connectors, Parflex Division, Parker Hannifin Corporation, Ravenna, Ohio; and Quick Disconnect Couplings (Fig. 6C) from Omega Engineering, Inc.

6. Please amend paragraph [0030] as follows:

[0030] A vital improvement of the claimed invention is to provide a quick connect/disconnect means for the electrolysis cell 11 from the separate compartment 26 or from a cell holder in general. Figs. 3, 4, 5A, 5B, 7 and 8 show the different ways of achieving this. Fig. 3 shows the electrolysis cell in a platform 37. It is preferable to construct the platform with the same material as the cell 11 which are usually made of hard plastic or metal. In this design, the cell is attached to the platform preferably by using an adhesive or a glue of the same or similar chemical composition as the plastic material making up the cell and the platform. For example, if the cell and the platform are made of polyvinyl chloride, a polyvinyl base adhesive will be used to glue the cell to the platform. If the cell is made of metal, welding the part or other conventional methods of attachments can be used. The platform 37 is made up of two

members, a male **37a** and a female **37b**. Figs. 3 and 4 show a male member **37a**, the male member directly attached to the cell, connecting to a female member **37b** by means of a screw-on mechanism. On Figs. 5A and 5B, the male member **38a** connects with the female member **38b** through a twist and lock mechanism. In an example of a twist and lock mechanism shown in Figs 5A and 5B, the male member **38a** attached to the base of the cell **11** has a slot **39** matching a protrusion **40** overhanging the peripheral top surface of the female member **38b**. To lock the cell in place, the male member drops into the female member through the slot **39** and once the male member occupies the circumferential area of the female member **38b**, the cell is twisted along with the male member, moving the slot away from the protrusion, thereby superimposing the protrusion over a flat surface of the male member to lock the cell in place. The male member **38a** may be solid or may have a hollow interior with solid surfaces or a solid top surface with an open base. Other twist and lock mechanisms following this concept and purpose will work equally well. Another way of easily removing and introducing the cell into the separate compartment **26** is to modify the rear panel **41** of the cell pressing on the end **42** opposite the front panel **27** of the cell. The rear panel is preferably made of metal. As shown in Fig. 7, the rear panel is preferably L-shaped with a vertical and a horizontal member. To attach the cell into the separate

compartment, sliding tracks 43a or clip-ons 43 are installed on the rear end of the bottom wall or base 44 of the compartment 26 or on a cell holder in general where the horizontal member 41a of the rear panel 41 can be secured by sliding into or clipping into the tracks or clip-ons, respectively. The horizontal member extend from a bottom edge of the vertical member if the sliding tracks or clip-ons are at the base of the compartment. If the tracks or clip-ons are at a top wall, the horizontal members would extend from the top edge of the vertical members. As shown in Figs. 7A and 7B, these tracks 43a or clip-ons 43 can be any number and may also be designed to cover the entire length of the horizontal member 41a. A much simpler and quicker means is shown in Fig. 8. In this design, the electrolysis cell is constructed with a rear panel 45 having a hook 45a on one end which in this illustration is on the top end and an inverted L 45b which in this illustration is on the bottom end, the hook 45a preferably in a coaxial orientation as the inverted L 45b to keep the cell from tilting. Tilting of the cell affect the outward flow of the liquids and gases produced during the process. The cell, as shown in Fig. 8 can be easily attached and detached by slipping the inverted L bottom end 45b into a bottom receiving bracket 46a and hooking the top end 45a into a top receiving bracket 46b. It is also possible to reverse the positions of the hook and the inverted L with minor adjustments that is easily derived from the

example as shown. In this design, there should be a suitable clearance **47** above the top receiving bracket **46b** to accommodate the cell prior to slipping this into these brackets. Further, it is important for the hook and the inverted L to snugly snuggle fit into the receiving brackets to prevent movement of the cell during the process or usage.

7. Please amend paragraph [0031] as follows:

[0031] Electrolyzed water used in the home primarily for drinking are housed in a more portable cabinet or housing and are preferably constructed with hard plastic. The current housing for these portable electrolysis system suffer from the same problem experienced with the commercial units described above. The electrolysis cell is likewise housed in a common compartment along with the other components of the electrolysis system such as the valves, tubings, hoses, flow sensors, electrical connectors, power control units, microprocessors and accessories. Because of the desire to make the system portable, the power source, circuits and any computer devices which are usually enclosed in a separate compartment are normally also housed in the same common compartment, thereby making it even more difficult to replace the cell when its designated operational lifetime has expired. In the present system **100**, as typically exemplified by Model Nos. TYH-31, TYH-51, TYH-81, TYH-91, and TIS-702 of Toyo Systems, a separate compartment **48** typically

house a filter member 49, with the rest of the components all squeezed into a main compartment 50. As shown in Fig. 9, even if the filter member 49 is in a separate compartment, this has to be removed from the unit before the main compartment enclosing the electrolysis cell can be opened. To remove the filter member 49, as shown in Fig. 9, one has to disconnect the flexible electrolysis water hose 51 from the system housing 100. To access the electrolysis cell 11a, the cover 52 of the filter compartment 48 has to be removed. If the filter member 49 is secured by a locking ring 53, this is first unlocked and removed before the filter member 49 can be released. The filter member base 54 has to be detached and the screws at back holding the front cover 56 ~~have has~~ to be removed to expose the interior of the main compartment 50. Even after the interior is exposed, further steps need to be done before the electrolysis cell can be replaced. These are, the bottom back water hoses 57 have to be disconnected, the bottom screws 58 and the top screws 59 holding the cell have to be disengaged as well as the electrical connectors 60, the hose clamp 61, and the screws (not shown) securing the platform 62 holding the cell 11a. Such steps are tedious and discourages an operator to replace the cell 11a even if it is required to ensure optimum performance.